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[GB/GB]; 218 Farnbridge Road, Maldon, Essex CM9 6BJ (GB).

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(74) Agent: HUCKER, Nerys; Marconi Intellectual Property, Marra House, The Vineyards, Gt. Baddow, Chelmsford, Essex, CM2 7QS (GB).

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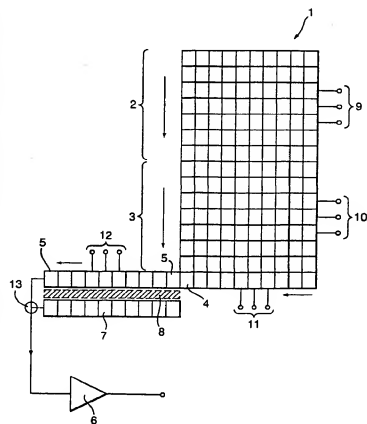
(71) Applicant (for all designated States except US): MARCONI APPLIED TECHNOLOGIES LIMITED  
[GB/GB]; One Bruton Street, London W1D 6AQ (GB).

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(72) Inventor; and  
(75) Inventor/Applicant (for US only): POOL, Peter, J.

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(57) Abstract: In a CCD imager, charge representative of incident radiation is clocked from an image area (2) via a store section (3) to an output register (4). The signal charge is clocked from the output register (4) to a multiplication register (5) to give charge multiplication. Excess charge developed at the multiplication register (5) is transferred into an additional register (7) which is clocked in synchronism with the multiplication register (5). The outputs of the registers are combined at (13) and applied to a charge detector (6). The provision of the additional register (7) increases the dynamic range capability of the CCD imager.

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